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CLAIMS

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1. An article comprising a part consisting of a rigid element (1) of elongate shape, at least one part of which has a cross section which has a profile defining a concave space, and comprising at least one part made of thermoplastic material (2) associated with the rigid element and positioned in the concave space of the rigid element, characterized in that the part made of thermoplastic material is in contact on at least two lines which are continuous in the longitudinal direction, and in that the part made of thermoplastic material has a cross section comprising at least one hollow (4).

2. The article as claimed in claim 1, characterized in that the part made of thermoplastic material positioned in the concave space of the rigid element (1) has a profile which is the conjugate of the concave space.

3. The article as claimed in claim 2, characterized in that the cross section of the rigid element is closed.

4. The article as claimed in claim 1, characterized in that the profile of the rigid element (10) is defined by at least one base (11) and two opposed walls (12a, 12b) defining two corners (14a,

14b) with the base and in that it comprises at least two parts made of thermoplastic material (15a, 15b) with hollow cross sections (18a, 18b) positioned in each corner, each of these parts resting along at least one portion of the base (16a, 16b) and at least one portion of the wall (17a, 17b) relative to the corner in which it is positioned.

5. The article as claimed in claim 3, characterized in that the profile of the rigid element is in the shape of a U or an I.

6. The article as claimed in one of claims 4 or 5, characterized in that it comprises reinforcing ribs (20) made of thermoplastic material resting at least partly on the parts made of thermoplastic materials positioned in the corners defined by the walls and the base.

7. The article as claimed in one of the preceding claims, characterized in that it is obtained by assembling a rigid element and at least one molded element made of thermoplastic material.

8. The article as claimed in claim 7, characterized in that the rigid element and the molded element are assembled by insetting, welding, bonding, riveting or clipping.

9. The article as claimed in one of claims 1 to 6, characterized in that the part made of

thermoplastic material is shaped by molding inside the concave space.

10. The article as claimed in claim 9, characterized in that the shaping is performed by a fluid-injection, preferably gas-injection, technique.

11. The article as claimed in either of claims 9 and 10, characterized in that the part made of thermoplastic material and the rigid element are secured by the protrusion of thermoplastic material through perforations made in the rigid element.

12. The article as claimed in one of claims 9 to 11, characterized in that the part made of thermoplastic material and the rigid element are secured by complete or partial overmolding of the rigid element.

13. The article as claimed in one of the preceding claims, characterized in that the rigid element is a tubular or profiled metal component.

14. The article as claimed in one of the preceding claims, characterized in that the thermoplastic material is a polyamide.

15. The article as claimed in one of the preceding claims, characterized in that the part made of thermoplastic material of hollow cross section comprises means for letting a fluid into and out of the interior of the hollow part.

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16. The use of an article as claimed in one of claims 1 to 15 in a fluid-transfer device.

17. The use as claimed in claim 16, characterized in that the fluids are chosen from air,
5 water, water containing glycol, fuels and oils.

18. The use of an article as claimed in one of claims 1 to 15 for producing motor vehicle front face components.

19. The use of an article as claimed in one
10 of claims 1 to 15 in a heat-exchange device.

20. A method for fabricating an article comprising at least one rigid element a cross section of which has at least one part defining a concave space and comprising at least one element made of a molded
15 thermoplastic material, characterized in that it comprises at least the following steps:

a) arranging, in an injection mold of chosen shape, a preformed rigid element one cross section of which has at least one part defining a concave space,
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b) injecting molten thermoplastic material into the mold,

c) injecting a fluid, preferably a gas, through a needle into the molten thermoplastic material present in the concave space of the rigid element.

25 21. A method for fabricating an article comprising at least one rigid element a cross section

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of which has at least one part defining a concave space and comprising at least one element made of a molded thermoplastic material, characterized in that it comprises at least the following steps:

5 a) arranging, in an injection mold of chosen shape, a rigid element that is to be preformed,

b) preforming the rigid element by pressing or by hot forming in the mold, the preform having a cross section which has at least one part defining a concave
10 space,

c) injecting molten thermoplastic material into the mold,

d) injecting a fluid, preferably a gas, through a needle into the molten thermoplastic material present
15 in the concave space of the rigid element.